



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-2069; Directorate Identifier 2015-SW-070-AD;**

**Amendment 39-18386; AD 2015-22-51]**

**RIN 2120-AA64**

**Airworthiness Directives; Agusta S.p.A. Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are publishing a new airworthiness directive (AD) for Agusta S.p.A. (Agusta) Model A109A and A109AII helicopters, which was sent previously to all known U.S. owners and operators of these helicopters. This AD requires checking and inspecting each main rotor blade (blade) for a crack and replacing any cracked blade before further flight. This AD is prompted by abnormal vibrations leading to a precautionary landing and a post-flight inspection finding of a crack in a blade. These actions are intended to detect a crack in a blade and prevent failure of a blade and subsequent loss of control of the helicopter.

**DATES:** This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] to all persons except those persons to whom it was made immediately effective by Emergency AD 2015-22-51 issued on October 23, 2015, which contains the requirements of this AD.

We must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-2069; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this final rule, contact AgustaWestland, Product Support Engineering, Via del Gregge, 100, 21015 Lonate Pozzolo (VA) Italy, ATTN: Maurizio D’Angelo; telephone 39-0331-664757; fax 39-0331-664680; or at <http://www.agustawestland.com/technical-bulletins>. You may review the referenced

service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**FOR FURTHER INFORMATION CONTACT:** Matt Fuller, Senior Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email [matthew.fuller@faa.gov](mailto:matthew.fuller@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

**Discussion**

On October 23, 2015, we issued Emergency AD 2015-22-51 to correct an unsafe condition for Agusta Model A109A and A109AII helicopters with certain part-numbered

blades installed. Emergency AD 2015-22-51 requires inspecting each blade for a crack before further flight and then once each day, checking each blade for a crack before each flight, and replacing any cracked blade. The manufacturer's maintenance program specifies inspecting each blade every 25 hours time-in-service (TIS). The actions in Emergency AD 2015-22-51 were prompted by abnormal vibrations leading to a precautionary landing and a post-flight inspection finding of a crack in a blade. The crack extended from the trailing edge to the rear face of the spar at the joint between the spar and the body of the blade. This condition, if not detected, could result in failure of a blade and subsequent loss of control of a helicopter.

Emergency AD 2015-22-51 was prompted by AD No. 2015-0190-E, dated September 18, 2015, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Agusta Model A109A and A109A II helicopters. EASA advises that abnormal vibrations were reported during a flight on a Model A109A II helicopter. During a post-flight inspection, a crack was found on a part number (P/N) 109-0103-01-9 blade. EASA AD 2015-0190-E requires pre-flight inspections and repetitive inspections of each blade. EASA advises that due to similarity of design, the inspections also apply to P/N 109-0103-01-7 and P/N 109-0103-01-115 blades. EASA advises that a cracked blade, if not detected and corrected, could affect the structural integrity of the blade, possibly resulting in blade failure and loss of control of the helicopter.

#### **FAA's Determination**

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with

Italy, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs.

### **Related Service Information**

We reviewed AgustaWestland Mandatory Alert Bollettino Tecnico No. 109-150, dated September 17, 2015 (ABT). The ABT specifies for blades with more than 500 flight hours, before the next flight and then before each flight, visually inspecting each affected blade for a crack in the area between the station at the end of the doublers and the station at the beginning of the abrasion strip (both top and bottom surfaces for a crack). The ABT also specifies inspecting the blades for a crack at every airworthiness check and, in case of doubt about a crack, dye penetrant inspecting each blade. If a crack is found, the ABT specifies replacing the blade with a serviceable one.

### **AD Requirements**

This AD requires for each blade P/N 109-0103-01-7, P/N 109-0103-01-9, or P/N 109-0103-01-115 that has 500 or more hours TIS:

- Before further flight and thereafter at intervals not exceeding 24 clock-hours, using a 3X or higher power magnifying glass, visually inspecting the top and bottom surface of each blade for a crack in the area between the station at the end of the doublers and the station at the beginning of the abrasion strip. If there is a crack, before further flight, replacing the blade with an airworthy blade.
- Before each flight, checking the top and bottom surface of each blade for a crack in the area between the station at the end of the doublers and the station at the

beginning of the abrasion strip. This check may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR §§ 43.9 (a)(1) through (a)(4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR §§ 91.417, 121.380, or 135.439. This check is an exception to our standard maintenance regulations. If there is a crack, the blade must be inspected using a 3X or higher power magnifying glass.

#### **Differences Between this AD and the EASA AD**

This AD does not require a change to the Rotorcraft Flight Manual nor does it require a dye-penetrant inspection, whereas the EASA AD does. This AD requires the blade inspection before further flight, whereas the EASA AD allows an initial check prior to the inspection.

#### **Interim Action**

We consider this AD interim action. If final action is later identified, we might consider further rulemaking then.

#### **Costs of Compliance**

We estimate that this AD affects 33 helicopters of U.S. registry. We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour. We estimate 1 work-hour to inspect a blade at a cost of \$85 per helicopter and \$2,805 for the fleet. We estimate 4 work-hours to replace a blade at a cost of \$340 per helicopter, and the required parts will cost \$30,000 for a total of \$30,340 per helicopter.

## **FAA's Justification and Determination of the Effective Date**

Providing an opportunity for public comments prior to adopting these AD requirements would delay implementing the safety actions needed to correct this known unsafe condition. Therefore, we found and continue to find that the risk to the flying public justifies waiving notice and comment prior to the adoption of this rule because the previously described unsafe condition can adversely affect the controllability of the helicopter and the required actions must be accomplished before each flight and daily.

Since it was found that immediate corrective action was required, notice and opportunity for prior public comment before issuing this AD were impracticable and contrary to public interest and good cause existed to make the AD effective immediately by issuing Emergency AD 2015-22-51 on October 23, 2015, to all known U.S. owners and operators of these helicopters. These conditions still exist and the AD is hereby published in the Federal Register as an amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13) to make it effective to all persons.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:



## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2015-22-51 **Agusta S.p.A.**: Amendment 39-18386; Docket No. FAA-2016-2069

Directorate Identifier 2015-SW-070-AD.

#### **(a) Applicability**

This AD applies to Model A109A and A109AII helicopters with a main rotor blade (blade) part number (P/N) 109-0103-01-7, P/N 109-0103-01-9, or P/N 109-0103-01-115 that has 500 or more hours time-in-service installed, certificated in any category.

#### **(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in a blade. This condition, if not detected, could result in failure of a blade and subsequent loss of control of the helicopter.

#### **(c) Effective Date**

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] to all persons except those persons to whom it was made immediately effective by Emergency AD 2015-22-51, issued on October 23, 2015, which contains the requirements of this AD.

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

(1) Before further flight, and thereafter at intervals not to exceed 24 clock-hours, using a 3X or higher power magnifying glass, visually inspect the top and bottom surface of each blade for a crack in the area between the station at the end of the doublers and the station at the beginning of the abrasion strip. If there is a crack, before further flight, replace the blade with an airworthy blade.

(2) Before each flight, check the top and bottom surface of each blade for a crack in the area between the station at the end of the doublers and the station at the beginning of the abrasion strip. If there is a crack, inspect the blade in accordance with paragraph (e)(1) of this AD. The check required by this paragraph may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR §§ 43.9 (a)(1) through (a)(4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR §§ 91.417, 121.380, or 135.439.

**(f) Special Flight Permits**

A special flight permit may be permitted for the inspection in paragraph (e)(1) of this AD provided there is no crack in a blade.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety

Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email: 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(h) Additional Information**

(1) AgustaWestland Mandatory Alert Bollettino Tecnico No. 109-150, dated September 17, 2015, which is not incorporated by reference, contains additional information about the subject of this final rule. For service information identified in this final rule, contact AgustaWestland, Product Support Engineering, Via del Gregge, 100, 21015 Lonate Pozzolo (VA) Italy, ATTN: Maurizio D'Angelo; telephone 39-0331-664757; fax 39-0331-664680; or at <http://www.agustawestland.com/technical-bulletins>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2015-0190-E, dated September 18, 2015. You may view the EASA AD on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2016-2069.

**(i) Subject**

Joint Aircraft Service Component (JASC) Tracking Code: 6210 Main Rotor  
Blade.

Issued in Fort Worth, Texas, on January 21, 2016.

Lance T. Gant,

Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

[FR Doc. 2016-01739 Filed: 1/29/2016 8:45 am; Publication Date: 2/1/2016]